

REMARKS

Claims 1 and 13 have been amended and non-elected claims 7 to 12 have been canceled. Claims 1 to 6 and 13 to 20 remain active in this application.

Claims 1 to 6 and 13 to 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Harris (U.S. 6,005,316) in view of Choi et al. publication. The rejection is respectfully traversed.

Claim 1 requires, among other features, both an input stage amplifier coupled to the output node and an output stage having at least two switching elements coupled to the output node. No such structure is taught or suggested by Harris, Choi or any proper combination of these references either alone or in the combination as claimed.

Claim 1 further requires a control circuit coupled to the output stage, the control circuit operable to produce a tri-state output from the output stage to the output node in response to a sensed value proportional to an amount of current that flows to the output node from the input stage amplifier. No such structure is taught or suggested by Harris, Choi or any proper combination of these references either alone or in the combination as claimed.

In addition, even were the combination of references to teach or suggest the invention as claimed in claim 1, which they do not as demonstrated above, there is no teaching or suggestion to combine the references as suggested in the Office action other than from a prior reading of the subject disclosure.

Claims 2 to 6 depend from claim 1 and therefore define patentably over the applied references for at least the reasons presented above with reference to claim 1.

In addition, claim 2 further limits claim 1 by requiring that the amplifier comprise an audio amplifier. No such structure is taught or suggested by Harris, Choi or any proper combination of these references in the combination as claimed.

Claim 3 further limits claim 1 by requiring that the input stage amplifier comprise a class AB amplifier. No such structure is taught or suggested by Harris, Choi or any proper combination of these references in the combination as claimed.

Claim 4 further limits claim 1 by requiring a threshold circuit operable to measure the current and to generate the sensed value. No such structure is taught or suggested by Harris, Choi or any proper combination of these references either alone or in the combination as claimed.

Claim 5 further limits claim 1 by requiring that the control circuit include a first portion operable to control the output stage when the current flows from the input stage to the output node and a second portion operable to control the output stage when the current flows from the output node to the input stage. No such structure is taught or suggested by Harris, Choi or any proper combination of these references either alone or in the combination as claimed.

Claim 6 further limits claim 1 by requiring that the control circuit be further operable to activate a first switching element of the output stage until the current reaches a second threshold after exceeding a first threshold, activate a second switching element of the output stage until the current reaches a fourth threshold after exceeding a third threshold and deactivate the first switching element until the current exceeds the first threshold and deactivating the second switching element until the current exceeds the

third threshold. No such structure is taught or suggested by Harris, Choi or any proper combination of these references either alone or in the combination as claimed.

Claim 13 requires, among other steps, providing an input stage amplifier an output stage and an output load coupled to the output stage, the output stage comprising at least two switching elements and measuring a sensed value proportional to a current flowing from the input stage amplifier to the output load . No such steps are taught or suggested by Harris, Choi or any proper combination of these references either alone or in the combination as claimed.

Claim 13 further requires the step of producing a tri-state output of the output stage of the amplifier using a control circuit responsive to the sensed value. No such structure is taught or suggested by Harris, Choi or any proper combination of these references either alone or in the combination as claimed.

Claims 14 to 20 depend from claim 13 and therefore define patentably over the applied references for at least the reasons presented above with reference to claim 13.

In addition, claim 14 further limits claim 13 by requiring that the sensed value comprise a voltage. No such structure is taught or suggested by Harris, Choi or any proper combination of these references in the combination as claimed.

Claim 15 further limits claim 13 by requiring that the input stage comprise a class AB input stage. No such structure is taught or suggested by Harris, Choi or any proper combination of these references in the combination as claimed.

Claim 16 further limits claim 13 by requiring that the control circuit comprise at least one comparator responsive to the sensed value and operable to control at least a first

switching element of the output stage. No such structure is taught or suggested by Harris, Choi or any proper combination of these references either alone or in the combination as claimed.

Claim 17 further limits claim 13 by requiring that the step of producing a tri-state output comprises activating a first switching element of the output stage until the current reaches a second threshold after exceeding a first threshold, activating a second switching element of the output stage until the current reaches a fourth threshold after exceeding a third threshold and deactivating the first switching element until the current exceeds the first threshold and deactivating the second switching element until the current exceeds the third threshold. No such structure is taught or suggested by Harris, Choi or any proper combination of these references either alone or in the combination as claimed.

Claim 18 further limits claim 13 by requiring that the second threshold be the same as the fourth threshold. No such structure is taught or suggested by Harris, Choi or any proper combination of these references either alone or in the combination as claimed.

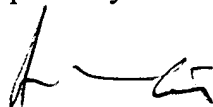
Claim 19 further limits claim 13 by requiring that each of the thresholds comprise a voltage proportional to the sensed value. No such structure is taught or suggested by Harris, Choi or any proper combination of these references either alone or in the combination as claimed.

Claim 20 further limits claim 17 by requiring that the first switching element be activated and deactivated by at least one comparator circuit, and the second switching element be activated and deactivated by at least one additional comparator circuit. No

such structure is taught or suggested by Harris, Choi or any proper combination of these references either alone or in the combination as claimed.

In view of the above remarks, favorable reconsideration and allowance are respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Jay M. Cantor', is written over the typed name.

Jay M. Cantor
Attorney for Applicant(s)
Reg. No. 19,906

Texas Instruments Incorporated
P. O. Box 655474, MS 3999
Dallas, Texas 75265
(301) 424-0355 (Phone)
(972) 917-5293 (Phone)
(301) 279-0038 (Fax)